

History and Contexts of Municipal Solid Waste Management in Aba – Recounting the Stories of Residents

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Abstract

To review the history of MSW management in a place, authors often review the development drivers of MSW management and or how such drivers have affected MSW management policy or practice in the place. This study focuses on the lived experiences of the residents. The researchers believe that a phenomenological review of the lived experiences of long term residents of the city of Aba, provide unique and more useful account of the development of MSW management in the city especially in the absence of any significant development in the methods and or processes of managing MSW. It is also recommended that similar methods be utilised in reviewing the development of MSW management in similar cities in Nigeria and other cities in Sub Saharan Africa. The study finds that over the period in review, the process of MSW management in Aba has remained rudimentary, primarily consisting of evacuation of refuse from one point to another without any form of treatment or processing. Responses from participants of this study – drawn from an extended peer community of long-term residents of the city, suggest that except for a period between 2013 and 2014, the overall MSW management situation in the city have worsened. From post-independence in 1960 to 2017, four distinct eras characterised mainly by the leadership and clarity of purpose was identified by analysing the responses from participants. There are widespread accusations of nepotism, corruption, ineptitude and high handedness levelled against the current leadership of Abia State Environmental Protection Agency (ASEPA) - the agency responsible for managing MSW in Aba. However, most of the current problems and challenges can be traced back to several years of negligence and subsequent dilapidation of infrastructure. For a sustainable progress to be made and maintained, MSW managers in the city must find a way to involve the wider community of stakeholders in the design, implementation and evaluation of the city's waste management policies and processes.

Keywords: Municipal solid waste (MSW), Context, History, Aba, Phenomenology, timelines

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1. Introduction

According to the United Nations Environmental Programme (UNEP), "Waste is a global issue. If not properly dealt with, waste poses a threat to public health and the environment. It is a growing issue linked directly to the way society produces and consumes. It concerns everyone" (UNEP 2015, pg. 1). This is particularly the case in low and lower-middle income countries (otherwise known as developing countries) where the unhealthy disposal of solid waste is still one of the greatest challenges (Nwankpa 2019, Kofoworola 2007). Bryan Walsh – Times Magazine's former energy and environmental correspondent, added - "One of the surest signs that you're in a developing country is the trash beneath your feet." This description fits the current realities in Aba, Abia State, Nigeria, and many other cities in Sub-Saharan Africa (SSA) where indiscriminate dumping of refuse and uncollected waste still block drainages and cause flooding, which destroy roads, waterways and bridges; and result in multiple incidences of cholera and loss of lives and properties (Nwankpa 2019, UNEP 2015).

Waste management, whilst more highly developed technically in the UK and other developed countries, continues to be a problem in Nigeria and other developing countries (Nwankpa 2019). However, there is increasing recognition that community-based bottom up solutions provide a corrective to the technical approach of attempting to replicate what has been done in developed countries (Nwankpa 2019). Methodological innovations including post-normal science - employed in this study; and citizen science in diverse social and cultural contexts, continue to contribute to research environment and enrich our understanding of the challenges of waste management especially in developing country settings.

2. The City of Aba – History and Background Information

Aba urban or Aba city was made up of several villages including Umuokpoji, Eziukwu, Obuda, Ogbor, Abayi, etc. These villages were merged for administrative convenience by the British. The British established a military post in Aba in 1915 after conquering the initial anticolonial revolt by the locals known popularly as The Aro Expedition (Nwankpa 2019). The British also constructed a railroad linking Aba to Port Harcourt, for easy transportation of agricultural produce (palm oil, palm kernels, cassava, vegetables, etc.). In 1929, the historic Aba Women Riot – a

protest to the census and taxation of women in the area by the colonial administration, took place in Aba (Van Allen 1975). By 1930, Aba was largely established as an urban community with thriving industries in textiles, breweries, soaps, etc. (Van Allen 1975).

The present day city of Aba, also known by admirers as Enyimba City (Enyi means Elephant and Mba means people or land in Igbo language – the language spoken by locals and indigenes of Aba) has the Elephant as its symbol, and is the biggest city in Abia State – one of the 36 states in Nigeria (Nwankpa 2019). Aba is the commercial and industrial centre of South-Eastern Nigeria and is also referred to as the Japan of Africa – a credit to the numerous artisans and quality handcrafts produced in the city (Ajero and Chigbo 2012).

With a population estimated to be just over one million, Aba occupies the area located between longitude 7°19'E and 5°10'N (Amadi and Nwankwoala 2013; Ummunnakwe et al 2013). In terms of climate, two distinct climatic seasons are predominant – rainy season (April to October) and dry season (November to March) (Amadi and Nwankwoala 2013). Relative humidity in Aba is 70% and 90% in dry and rainy seasons respectively while the average mean temperature is between 24°C and 34°C (Ezechi et al 2017; Ukpong et al 2015). The distance between Aba and Port Harcourt in Rivers State – the oil capital of Nigeria, is about 43 miles and occupied mainly by oil producing communities of Ukwa and Ugwunagbo LGAs (Local Government Areas) of Abia State (Nwankpa 2019). Aba also has a network of roads leading directly to other states in the South of Nigeria including Enugu, Ebonyi, Cross River, Akwa Ibom and the neighbouring Imo (Nwankpa 2019, Ezechi et al 2017).

3. MSW Management in Aba

For a very long time now, the MSW management situation in Aba, like in many other cities and urban areas in Nigeria, have reached alarming and critical dimensions (Nwankpa 2019; Izugbara and Umoh 2004; Ekugo 1998; Nwankwo 1994; Adedibu 1986; Sule 1982). The attendant deaths and illnesses from diarrhoea, respiratory and lung diseases, malaria, parasitic worms, typhoid fever, cholera, etc. caused in no small measures by poor MSW management practices have implications on the social, political and economic development of the population (Izugbara and Umoh 2004; Izugbara and Ukwaiyi 2002; Izugbara and Okon 2000).

The primary responsibility of managing MSW in Aba falls on the Abia State Environmental Protection Agency (ASEPA) (Ajero and Chigbu 2012). However, like it is in many other cities and urban areas in Nigeria, MSW, where it appears at all, is very low on the governance agenda (Nwankpa 2019 and Nzeadibe et al 2012). This attitude to MSW management has resulted in the absence of, poor or weak implementation of the national environmental sanitation policy in Abia State (Odoemena and Ofodu 2016; Eneh 2011). Clearly, there are several factors militating against adequate management of MSW in Aba, including - organisational capacity, limited and dilapidated infrastructure, lack of skilled manpower and lack of commitment (Nwankpa 2019; Izugbara and Umoh 2004, Abila and Kantola 2013), but ASEPA cites poor funding as its major hindrance to providing effective MSW management services in the city (Ukpong et al 2015). Consequently, ASEPA adopts a task force or ad-hoc approach to MSW management in the city, often using crude approaches and brute force in the enforcement of the environmental protection laws (Nwankpa 2019). This is typified on the environmental sanitation day which supposedly holds every last Saturday of the month and mandates all residents to carry out a clean-up of their immediate surroundings (Nwankpa 2019; Izugbara and Umoh 2004). The 'environmental sanitation day' is arguably the best known MSW management policy by the public in Aba, and perhaps residents in most other Nigerian cities, but garbage from the clean-up exercise, like other waste generated in the city which are indiscriminately dumped, end up at the roadsides (Nwankpa 2019; Izugbara and Umoh 2004). By the roadsides, the garbage rots, some eaten by animals, others scavenged by informal waste recyclers, while the rest are washed off by rainwater and flood (Nwankpa 2019; Ogbonna et al 2002).

There are an estimated 600 informal waste pickers in Aba made up of men, women and children (Nwankpa 2019; Nzeadibe et al 2012). Collectively, the activities of these informal waste pickers account for all the materials recovering and recycling activities in the state (Nwankpa 2019). But these informal waste pickers are not recognised or regarded as stakeholders in MSW by ASEPA (as the waste management authority in the city) and are often treated with opprobrium (Nwankpa 2019; Nzeadibe 2009; Nzeadibe and Iwuoha 2008).

4. Methodology – Ontology, Epistemology and Theory

Oftentimes, to review the history of MSW management in a place, authors review the development drivers of MSW management and or highlight how such drivers have affected MSW management policy or practice in the place (Nwankpa 2019, UN-Habitat 2010; Velis et al 2009; Wilson 2007; Wilson 1999). However, in Aba, MSW management have remained rudimentary over time - involving the evacuation of refuse from one point to another, without any form of treatment or processing (Nwankpa 2019). For this study, we argue that adopting a constructivist interpretive review of the lived experiences of participants drawn from the extended community of residents of the city of Aba provides invaluable insights and deep sociological perspectives into the history of MSW management in the city (Crotty 1988).

Therefore, we adopted a Post Normal Science (PNS) approach by extending the peer community of

participants in the study to include management of ASEPA, staffs of ASEPA, management and staff of environmental health departments in the relevant LGAs, informal waste pickers, captains of industries based in Aba, traders, members of the public, etc. (Nwankpa 2019; Fetalvero et al 2013; De March and Ravetz 1999). Using semi-structured interviews, each participant was asked open ended questions relating to their knowledge of MSW management in the city. Based on their initial responses, the interviewee probed further to obtain relevant missing details. Table 1 below shows some of the questions and further probes used to obtain information from participants of this study. Sampling was mainly through judgement/purposeful sampling as most participants were identified and approached because of their position, roles, and length of residence in the city (Kielmann et al 2011; Robson 2002). A total of 58 interviews were completed and participants' details have been replaced with identification numbers (id =1 to id =58).

Table 1: Interview Questions and further probes after initial response

Essentially, this study is a phenomenological study, constructing meaning of the history of MSW management in Aba by interpreting the lived experiences of the participants. In the absence of credible drivers of MSW management and a dearth of literature on the subject, we suggest that this method of review is suitable and more valuable in reviewing the history and development of MSW management in most cities and urban centres in Nigeria and perhaps other developing countries.

5. Results and Analysis

The data is presented in the form of excerpts from the responses of participants while the data analysis involves the interpretation of the data and the construction of meaning. Both are presented side by side to make the best of the information contained in the data. Where relevant, participant responses are juxtaposed with current literature for discussion and clarity.

Four distinct timelines are identified from the responses of participants, each corresponding to an era in the management of MSW in Aba from post-independence to date. The timelines are as shown in Table 2 below.

Table 2: Four (4) Eras of MSW Management in Aba

5.1 1960 to 1988 - Mbakwe's Era

Chief S.O Mbakwe was the governor of old Imo State from 1979 to 1983. Abia State was carved out of the old Imo State in 1991 (Nwankpa 2019). Most participants referred to the period of Mbakwe's tenure as governor as a time when government in the state had a sense of purpose. They enthused that there was a clear policy, determination, drive, and commitment by the government of the time to keep the environment clean and protect the lives of the masses (Nwankpa 2019). Table 3 below show excerpts from responses of some of the participants relating to this timeline.

Table 3: Excerpts of Participants' Responses relating to Mbakwe's Era

The WAI-C was a headline program of the then Supreme Military Council (SMC) headed by Major General Muhammadu Buhari and his second-in-command Major General Babatunde Idiagbon. There are repeated tales of overzealous military personnel beating up civilians for offenses such as not queuing up or littering. The states were also mandated to implement the WAI-C program, which meant that public officials were held accountable and responsible when they failed in their duties (Nwankpa 2019).

The responses from participants clearly indicated that during this era, there were serious implications for people who erred from the seemingly etiquette of caring for one's immediate environment. This view was summarised by one participant (id=1) thus: "women found culpable by EHOs on inspection were treated as outcasts in the community as other members of the community resented, avoided and treated them with odium".

On the actual process of managing MSW in this era, most participants concurred that residents dumped their waste on the ground at specified places because there were no communal waste bins or skips then. They also agreed that because the waste was routinely evacuated from the sites, the Aba environment was cleaner during this era when compared to how it is presently. However, most participants were also in agreement that the increased population in the city have affected the MSW management situation adversely.

Using the traffic colour code scheme, Figure 1 below is an impact diagram of the MSW management situation in Aba during the Mbakwe's era according to the responses obtained from participants.

Figure 1: MSW Management Situation in Aba during Mbakwe's Era

Figure 1 shows that during the Mbakwe's era, several positive (colour green) factors including: sincere and purposeful leadership, high level of discipline, clear policy on MSW management, use of trained professionals (EHOs), public waste bins available at strategic positions, enforcement as deterrent, low population density and availability of support groups such as WAI-C brigades, etc., contributed to ensuring that the overall MSW management situation was the best over the period in review.

5.2 1988 to 2013 - After Mbakwe but before Okezie Ikpeazu became DGM of ASEPA Aba Zone

This time period has been christened the era of decay because analysis of the responses from participants identified this period as when things began to take a turn for the worse for MSW management, not only in Aba but across the entire country (Nwankpa 2019). Even though we have designated the timeline for this era as 1988 to

2013, in essence, it could be anytime from 1984 because many stakeholders argued that the then SMC did not fund the ministries adequately so as to maintain the level of services they were providing but rather used military might to crack down on civilians. This could well be true as it is common knowledge that the then SMC ran an austerity economic policy (Nwankpa 2019). Other participants reckon this era could have begun in early 1990s, when Nigeria was already deep rooted in military rule. Whatever the timeline, the unanimous submission from participants is that the decay in MSW management that is still being felt today in cities all over Nigeria began in this era. The National Environmental Sanitation Policy – a policy document developed by the Federal Ministry of Environment (FME) in 2005 throws more light on this when it says in section 1.2.4 (pg. 12) “In the immediate post-independence era (1961-1980), legislation and authority on Environmental Sanitation were derived from the Nigerian Constitution as stated in the concurrent, exclusive and residual lists. Nonetheless, routine house to house inspection was still effective in the maintenance of environmental sanitation. However, political interference with the statutory role of Sanitary Inspectors led to the collapse of the house to house inspection programme and contributed to the poor sanitary conditions in the country”.

Corruption in Nigeria manifests in several forms including, but not restricted to, inflation of official contract fees, doling out of public funds to political allies and cronies in the guise of contracts, kickbacks on public procurements and outright embezzlement of public funds (Nwankpa 2019; Chukwuemeka et al 2012). Many participants in this study narrated how corruption and nepotism slowly but steadily grew through the military regimes to the point now where it pervades the entire public service. It is corruption that the participants blame for the dilapidation in infrastructure. Many participants posited that with the diversion of public money into private purses, the existing infrastructures were left to rot away as they were not maintained. With funds siphoned and or diverted from the primary purposes, staff salaries were not, and are still not paid as and when due. Thus, corruption was also blamed for the loss of discipline and disillusionment of both public sector workers and members of the public as reflected in the following responses by participants in Table 4.

Table 4: Excerpt of Participants’ Responses relating to the Era of Decay

Between 31st December 1983 and 29th May 1999, Nigeria had 4 military heads of state and a civilian-headed transition government that lasted 83 days (Nwankpa 2019). This period was reportedly chaotic for MSW management in Aba and saw the promulgation of several sanitation related regulations and the creation of several federal, state, and local government agencies to oversee sanitation. As well as the power to enforce the last Saturday of the month as a sanitation day, these agencies were also given the power to levy the service users (Nwankpa 2019). Figure 2 below is the impact diagram showing how all the factors advanced by the participants ensured this era was perhaps the worst over the period in review.

Figure 2: MSW Management Situation in Aba during the Era of Decay

5.3 June 2013 to October 2014 - Okezie Ikpeazu as DGM ASEPA Aba Zone

Okezie Ikpeazu is the current governor of Abia State. He holds a PhD in Biochemical Pharmacology and was appointed Deputy General Manager (DGM) of ASEPA Aba Zone in June 2013 by the then governor of Abia State. A position he resigned in October 2014 to become a gubernatorial candidate (Nwankpa 2019).

In the preceding period (era of decay), ASEPA and other state agencies to oversee sanitation were created. In Abia, ASEPA was given the overall mandate of managing MSW as well as other environmental protection responsibilities (Nwankpa 2019). The entire MSW management system of the state was divided into two (2) zones – Aba (the biggest city in the state) and Umuahia (the state capital). The organogram of ASEPA, Aba zone (Figure 3 below show that the Deputy General Manager (DGM) has direct access to the state governor who retains the authority to appoint the DGM and members of the Abia State Environmental Protection (ASEP) board.

Figure 3: Organogram of ASEPA Aba Zone

In his position as the DGM of ASEPA Aba Zone, it could be said that Ikpeazu was responsible for MSW management in Aba. Members of staff of ASEPA that participated in this study reported that with the senior management staff, the DGM determines the zone’s strategic focus and operational processes. As DGM, Ikpeazu also controlled the revenue and could hire and fire staff for the zone. While he was expected to report to the governor monthly, he only really had recourse to the governor if his zone needed more funds. Several participants narrated that at this time; refuse heaps occupied even major streets in the city for upwards of 2 weeks before they were eventually evacuated. The mandate was clear. Table 5 below show excerpts from responses of participants.

Table 5: Excerpt of Participants’ Responses relating to the Ikpeazu’s Era

With the entire city of Aba almost overran by refuse dumps, Ikpeazu could be excused for adopting an ad hoc approach. However, the underlying problems that preceded his era – corruption, dilapidated infrastructure, high population density, etc. remained, and perhaps that explains why the successes recorded during his era as DGM was not sustained in the era that followed.

Figure 4 (below) is an impact diagram that shows how the different factors highlighted by participants contributed to the overall MSW management situation of the Ikpeazu’s era.

Figure 4: MSW Management Situation of the Ikpeazu’s Era

5.4 2014 to date (Era of Oppression)

The current leadership of ASEPA continued with the basic operating processes introduced during Ikpeazu's era with a few minor tweaks such as the introduction of a time restriction to when refuse can be dumped at the secondary collection points (skips) and the introduction of bin bags which the service users are expected to buy from the agency. They have also expanded the role of the agency staff to include health education and abatement of nuisances – roles which are also in the primary remit of EHOs (Nwankpa 2019).

However, besides failing to meet the modest expectations of residents (service users), there are widespread serious accusations of nepotism, corruption, ineptitude, gross inefficiency, and oppression levelled against the current leadership of the agency in Aba zone. These allegations were not only made by members of the public but were substantiated by several members of staff ASEPA. Table 6 below show excerpts from some of the responses from participants.

Table 6: Excerpt of Participants' Responses relating to the Current Era (of Oppression)

The discontentment and anger toward ASEPA were very palpable and it was not difficult to empathise with the participants. All the gutters observed in the city were filled with refuse. Indiscriminate dumping was rife and there were no refuse bins provided for use by members of the public. Consequently, odour nuisance was ubiquitous in the city while vermin infestation was of obvious concern. Figure 5 below shows a picture taken near the Main Motor Park in the city.

Figure 5: A Refuse-blocked gutter near Aba Main Park

The MSW management situation observed in Aba was very deplorable but when a senior management staff of ASEPA (id = 40) was interviewed to get his opinion on some of the issues raised by participants, he insisted that the agency was doing its best under the prevailing circumstances, and blamed the service users and residents of the city for indiscriminate dumping, avoiding payment of the sanitation levy and even accused them of dissident behaviour (Nwankpa 2019). When the interviewer suggested to him that most dissident behaviours could be overcome by adopting an inclusive approach that involves all stakeholders he found it laughable at first and then responded as follows "naturally, it is difficult to consult the waste generators. You take decisions, design the system and communicate the decisions to them. It is the business of the agency to design waste management strategy and tell them the strategy so designed". This attitude was rife at the agency and all the agency staff interviewed confirmed the stakeholders have never been consulted with regards to seeking their opinions into how waste should be managed in the city. However, all other participants declared their keenness to have an opportunity to give their opinions and contribute to the design of the MSW management process of the city.

While the agency still has a clear mandate, it will suffice to say that most of the problems reported in the era of decay have resurfaced in this era. The assessment of the agency going by the responses of participants is scathing. Figure 6 shows the impact diagram of the current situation of MSW management in the city.

Figure 6: MSW Management Situation of the Current Era (Era of Oppression)

6. Conclusion

The review of developments in MSW in Western countries can be suitably carried out by reviewing the different stages and drivers of such developments. However, in Aba and most cities in Nigeria, and perhaps other developing countries, where MSW management processes are still very rudimentary, a phenomenological study of the lived experiences of an extended community of stakeholders, service users and or residents can provide invaluable details into the history, perspectives and contexts of MSW management development. Our study has shown that this method of review provides a richer contextualised information and is more suited to similar cities to Aba, where there is a dearth of relevant research and literature on the development of MSW management.

By analysing the responses provided by participants, we identified four (4) distinct regimes or eras in MSW management of the city from post-independence in 1960 to 2017. We also discovered that the main distinguishing factor in the different eras was the leadership and clarity of purpose. From a period of stability occasioned by the focused leadership and clarity of purpose of the Sam Mbakwe era, MSW management suffered immensely for an extended period of about 25 years (1988 to 2013) when negligence, corruption and indiscipline ensured the total decay of the city's infrastructure. The short period of Okezie Ikpeazu's era as DGM of ASEPA Aba Zone witnessed a renaissance, again occasioned by strong leadership and clarity of purpose which has not been sustained by the current leadership of the agency.

Currently, indiscriminate dumping of refuse is rife and odour nuisance is ubiquitous in the city. Consequently, ASEPA received a scathing assessment by the residents and service users. However, there is enough indication in the responses of participants that the leadership of the agency can still enjoy the public goodwill which the current governor enjoyed during his time as the agency boss. Whether or not that is realised depends on the ability and willingness of the current leadership to adopt an inclusive approach by consulting, engaging and involving the residents and service users in the design, implementation and evaluation of the MSW management policies and processes in the city.

Future research studies will explore the potential benefits of adopting such an integrated approach that

encourages the consultation, engagement and participation of all stakeholders in the MSW management process in the city of Aba, Abia State, Nigeria.

The review of the history and development of MSW management in Aba over the period highlighted can be summarised in Figure 7 below.

Figure 7: Wheel of MSW Development in Aba between 1960 to 2017

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Notes

Notes 1: Below are the list of tables

Table 1: Interview Questions and further probes after initial response

Questions	Further Probes
What can you tell me about MSW management in Aba?	Would you say MSW in Aba is getting better or worse?
In your own words, how would you describe MSW management in Aba?	How has the situation changed over the period you have lived here?
What is your personal knowledge of MSW management in Aba?	In the time you described, how has MSW management changed in the city?
How long have you lived in Aba and what is your assessment of MSW in the city?	Are you satisfied with the MSW management situation in Aba?

The table shows the initial interview questions and further probes used after the opening response from participants.

Table 2: Four (4) Eras of MSW Management in Aba

Timeline	Era
Years up to 1987/1988	Mbakwe's Era (Era of Stability)
1988 to 2013	After Mbakwe but before Okezie Ikpeazu became DGM of ASEPA Aba Zone (Era of Decay)
2013 to 2014	Okezie Ikpeazu as DGM (Era of Ad hoc Remediation)
2014 to 2017	Current Era (Era of Oppression)

Table 2 shows the 4 distinct timelines identified from analysing the responses provided by participants

Table 3: Excerpts of Participants' Responses relating to Mbakwe's Era

Participant (id)	Response
9	"We should not be littering waste here and there. The truth is that this government has no program. During Mbakwe's time, there was a program called 'Keep Imo a Beautiful Society' which was positively pursued".
22	<p>"I'm in my late 40s now. As a kid, I saw Environmental Health Officers (EHOs) from local governments coming to fumigate our gutters. I also participated as a member of the War Against Indiscipline and Corruption (WAI-C) brigade. We usually went round Aba excavating refuse and de-silting the gutters, something they now give out as major contracts to political cronies for huge pay and yet it does not get done".</p> <p>"Even though then, the population was not as much as it is now, bearing in mind the small population and the efficiency of the (waste management) professionals that were used then, the Aba environment was very clean".</p> <p>"I know that I met an environmental system where you see the EHOs do not just sit in their local governments waiting for allocations to be shared as salaries; these people go (went) about noting houses that are dirty and once your house is noted as being dirty, the next thing that happens is that police will come to arrest the landlord. And what the landlord will do is to bring out the erring tenant who will be sanctioned. Most times, it attracted quit notices to people (i.e. defaulters)".</p>
7	"Aba used to be cleaner but the increase in population has put a lot of pressure. The process employed now is better (referring to the use of skips against the practice of dumping the refuse on the ground) but it's not punctual or regular and that's why it seems it's not working. The timing needs to be improved to ensure the skips don't overflow".

Table 3 show excerpts of responses from participants relating to Mbakwe's era.

Table 4: Excerpt of Participants' Responses relating to the Era of Decay

Participant (id)	Response
9	"It has gotten much worse. There was a time this street was being swept by road cleaners. Now, from year to year, nothing; 5 years, nothing. It is like this because the present democracy that is almost 20 years has no program, no positive and practical program. They may claim to have ASEPA and what have you, but they are all empty claims that can be likened to building a house without foundation"
28	"You know, during the military days, everything was with force. The corruption that has become deep-rooted today, started in the military days."
29	"If you check it very well, you will realise that most of the problems we are facing now did not start today. Nigeria as a whole started going backwards when the military took over in 1983. Also, the present democracy has failed Nigeria and Nigerians. All our politicians are good at is stealing. They steal everything even money for funeral".
42	"Before the present governor's tenure as the DGM ASEPA Aba, refuse dumps used to take over almost all the major roads in Aba including Asa Road, and they will be there 2 or 3 days before they are carted away. Now, those heaps get removed on daily basis".

Table 4 show excerpts of responses from participants relating to the era of decay.

Table 5: Excerpt of Participants' Responses relating to the Ikpeazu's Era

Participant (id)	Response
4	<p>"The best has not been given with respect to waste management in Aba. A huge success was recorded when the present governor was the ASEPA manager. Waste is no longer being carted away appropriately as it used to be. Waste receptacles are getting overfilled and more wastes dumped on the ground"</p> <p>"That man was always in the field and he gained popularity from what he did as head of ASEPA. That's partly why he became the governor. Now he's the governor, he may not know what goes on in the field. We need to find out if the problem is coming from ASEPA as a sector or from the centre (state government)".</p>
33	<p>"I think ASEPA has lost total control compared to when the present governor was the head of ASEPA. In my street, people dump waste on the street because there is no designated point nearby (the closest is over 2 miles away). Some people dump in the gutter and others use any bush close to them".</p> <p>"There was street collection service. People eagerly awaited those ASEPA vehicles as if they were celebrities. The environment was cleaner (than now), and people were happy".</p>
30	<p>"I have lived all my life here in Aba the exception being when I was studying. I have practiced here (as a legal professional) for about 12 years. There was a time it (the MSW management situation) was very bad. Those days, Aba was known as 'Aba dirty' but since the present governor served as ASEPA boss, I won't say they have fallen much short".</p>

Table 5 show excerpts of responses from participants relating to Ikpeazu's era as DGM of ASEPA, Aba zone.

Table 6: Excerpt of Participants' Responses relating to the Current Era (of Oppression)

Participant (id)	Response
3	<p>"Yes, we pay but not directly to government but to revenue collectors. It's actually a problem because there is no link between what is paid and disposing of waste as there is no service provided".</p>
5	<p>"Yes, I pay sanitation levy, but I have never seen anyone from ASEPA or otherwise come to cart away my waste".</p>
6	<p>"Absolutely nothing. The nearest designated skip is about 10-minute drive away (I don't know the distance in km)".</p>
28	<p>"Before I get into that, the whole country is in a mess. Salaries are not being paid and morale is very low. Most staffs now call in sick and you cannot force anyone to work when they are sick".</p>
32	<p>"Absolutely nothing. I still have to pay a private contractor between #15,000 and #20,000 every month to dispose my waste".</p>
41	<p>"The salaries we receive are not even what we are paid on paper – I can tell you that those receiving twenty thousand naira (#20,000.00) are recorded as fifty thousand naira (#50,000.00) on paper. You can ask anyone who knows the inner working here. The level of corruption is untold".</p> <p>"We are not saying they are ghosts; they come and take their salaries, but they don't work. I am just giving you true information. I can be fired tomorrow but the truth has to be told".</p>
43	<p>"You get nothing for the #1000 but you have to pay it".</p>
44	<p>Traders pay #1000 per shop to ASEPA for waste management through the market's task force on sanitation but ASEPA does not provide any service so traders spend even more money, #100 to #200 weekly to dispose their waste through informal waste pickers</p>
45	<p>"Government contracts the revenue collection to individuals, but the worst part is that once they collect the revenue, they disappear. You are left to pay private people to dispose your waste". "Government is just using the waste management portfolio to generate funds from the masses. They do not understand what it takes to provide the waste management services needed".</p>
47	<p>"There was a time ASEPA used to go round with their truck and people will be throwing their waste into the trucks. At least, that was service everyone could see. Now they tell you they have some buckets somewhere and you have to take your waste there. For us here, I cannot leave my work to go and throw my refuse there because it is far".</p> <p>"They usually come in a very terrible way – with police and even thugs and they will apprehend everyone they find in the vicinity. All those people (apprehended) will bail themselves and also pay the levy".</p>

Participant (id)	Response
48	“See, when I pay for electricity bill, I expect electricity supply every day. Likewise, when I pay for sanitation, I expect service from them (ASEPA). That’s all; nobody is asking them for favours”.
49	“The truth is that if it is a government that has respect for people’s right, they will seek the views and opinions of people in this market. But this government don’t care; they just enforce whatever they decide”. “We know this government; they are just after their pockets”.

Table 6 show excerpts of responses from participants relating to the current era (of oppression).

Notes 2: Below are the lists of Figures

Figure 1: MSW Management Situation in Aba during Mbakwe’s Era

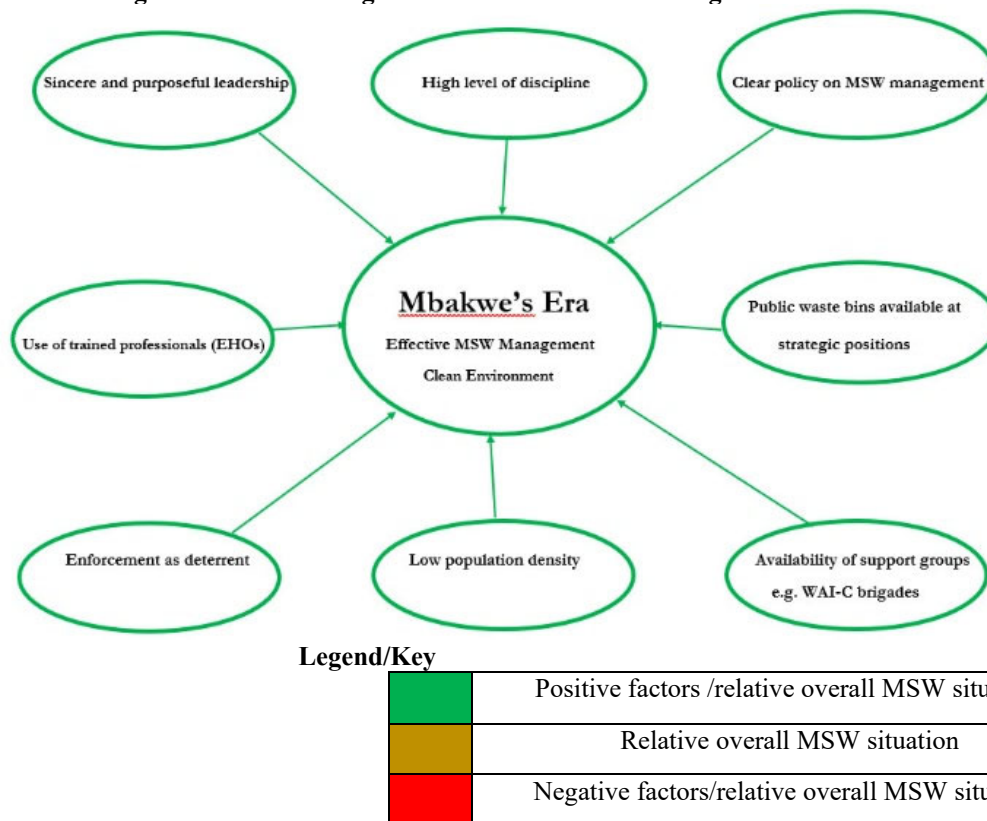


Figure 1 show the factors that influenced the overall MSW management situation during Mbakwe’s era.

Figure 2: MSW Management Situation in Aba during the Era of Decay

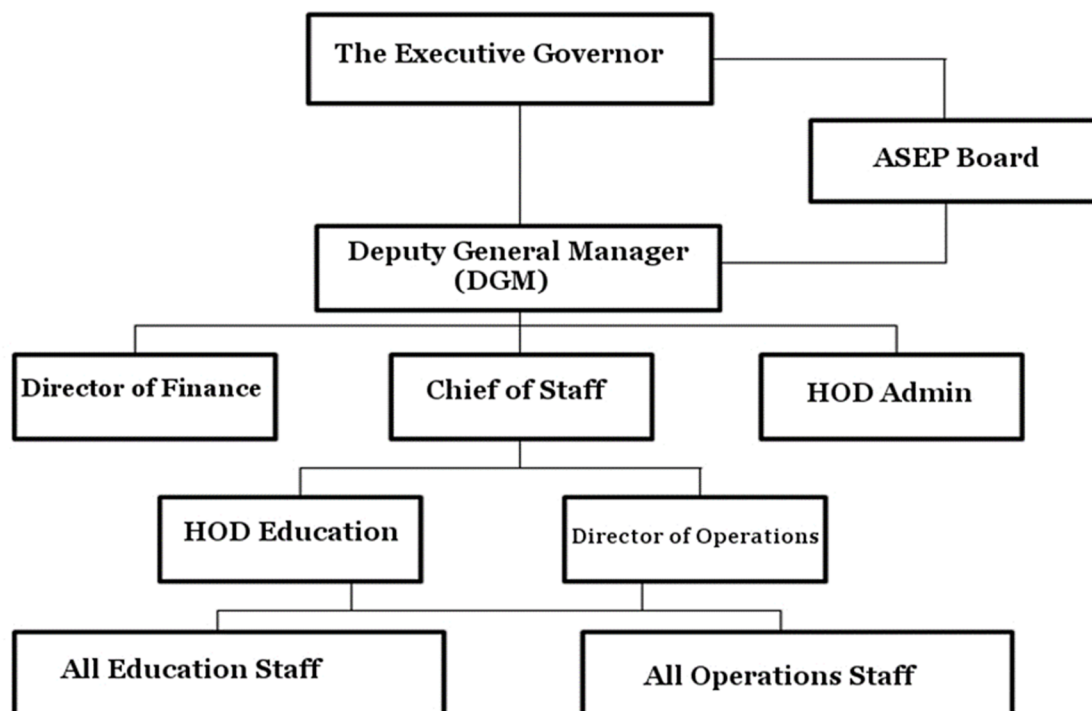


Legend/Key

	Positive factors /relative overall MSW situation
	Relative overall MSW situation
	Negative factors/relative overall MSW situation

Figure 2 show the factors that influenced the overall MSW management situation during the era of decay.

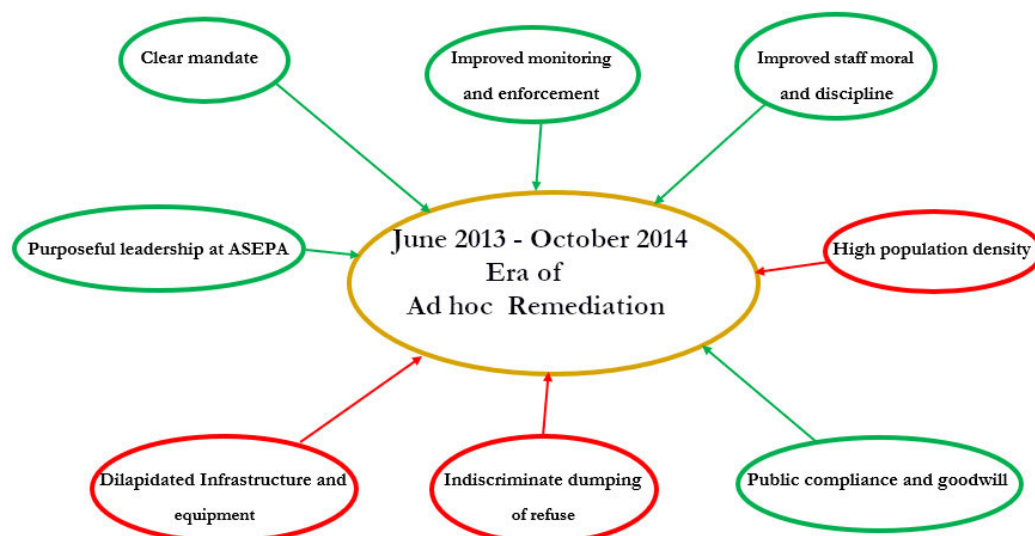
Figure 3: Organogram of ASEPA Aba Zone



(Credit: Nwankpa 2019)

Figure 3 shows the organogram of ASEPA, Aba Zone.

Figure 4: MSW Management Situation of the Ikpeazu's Era



Legend/Key

	Positive factors /relative overall MSW situation
	Relative overall MSW situation
	Negative factors/relative overall MSW situation

Figure 4 show the factors that influenced the overall MSW management situation during Ikpeazu's era as DGM of ASEPA, Aba zone.

Figure 5: A Refuse-blocked gutter near Aba Main Park



Credit (Nwankpa 2019)

Figure 5 shows a refuse-blocked drainage (gutter) near Aba Main Park (Picture taken by the researcher in October 2017).

Figure 6: MSW Management Situation of the Current Era (Era of Oppression)

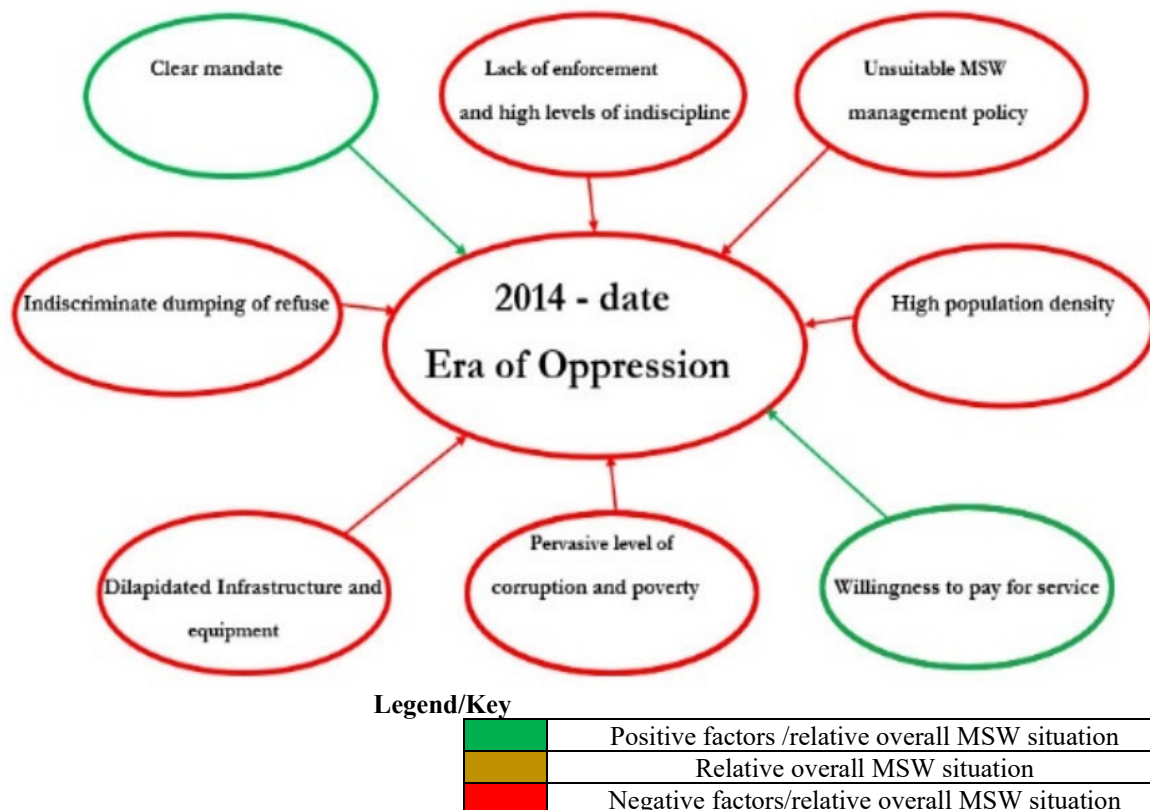


Figure 6 show the factors influencing the overall MSW management situation during the current era.

Figure 7: Wheel of MSW Development in Aba between 1960 to 2017

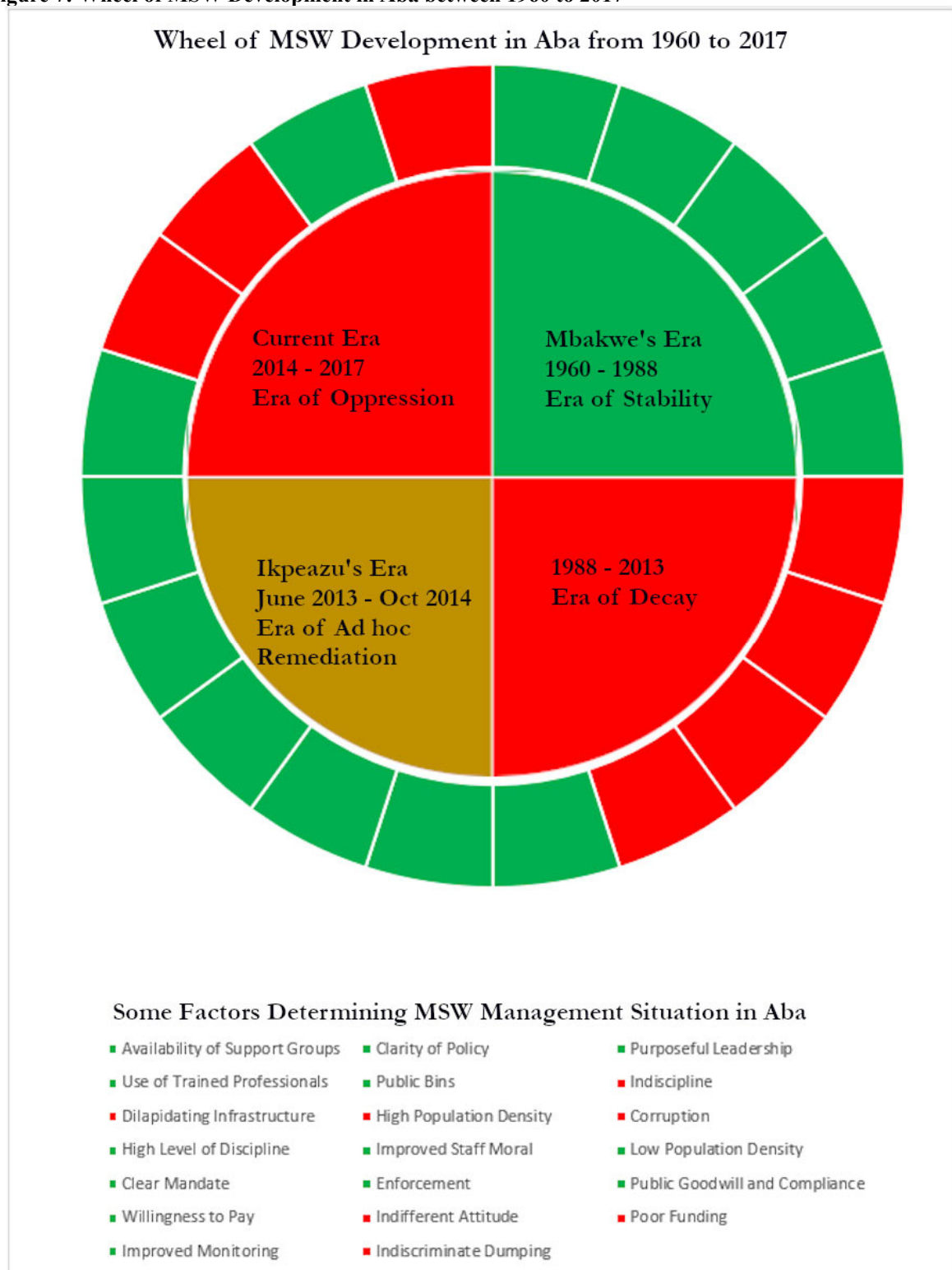


Figure 7 show the common factors, highlighted by participants, influencing the MSW management situation in Aba, Abia State, Nigeria from post-independence to 2017.